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Peter Larsson

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

MADAMBA, GLENFORD J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/729,835	Applicant(s) LARSSON ET AL.	
	Examiner Glenford Madamba	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/04, 7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, 6, 11, 12, 13, 20, 21, 23, 24, 25, 34, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsson in a Non-Patent Literature (NPL) Publication "Selection Diversity Forwarding in a Multihop Packet Radio Network with Fading Channel and Capture", (hereinafter Larsson), dated October 2001.

As per claims 1, 20, and 34, Larsson discloses a method for forwarding information in a multi-hop network having multiple nodes, said method comprising the steps of:

receiving, in at least one receiving node, a superposition of signals transmitted from multiple transmitting nodes [Pages 279-281] [Figs. 1-3];

employing multi-user detection (MUD) to decode multiple data packets from the received superposition of signals [Pages 279-281] [Figs. 1-3];

prioritizing among correctly decoded packets to select at least one data packet suitable for forwarding [Pages 279-281] [Figs. 1-3]; and

replying with a packet acknowledgement for each selected packet [Pages 279-281] [Figs. 1-3].

Claims 20 and 34 recite the same limitations, are distinguished only by statutory category, and thus rejected on the same basis.

As per claims 2, 21, and 35, Larsson discloses the method according to claim 1, wherein said prioritizing step comprises the step of selecting multiple data packets suitable for forwarding, and multiple packet acknowledgements are transmitted to a plurality of corresponding transmitting nodes [pg. 280, 2nd Paragraph] [Fig. 2].

As per claims 4 and 23, Larsson discloses the method according to claim 1, further comprising the step of transmitting a forwarding order to said at least one receiving node in response to a packet acknowledgement [Fig. 2].

As per claims 5 and 24, Larsson discloses the method according to claim 4, further comprising the step of executing, in response to a forwarding order, forwarding of a corresponding selected packet (i.e., 'forwarding order') [Fig. 2].

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As per claims 6 and 25, Larsson discloses the method according to claim 5, further comprising the step of said at least one receiving node replying, in response to a forwarding order, with a corresponding forwarding order acknowledgement (i.e., 'forwarding order ACK'[Fig. 2].

As per claim 11, Larsson discloses the method according to claim 1, wherein said forwarding is performed based on a contention-based multiple access protocol (e.g. SDF Protocol) [Pages 279-281] [Figs. 1-3].

As per claim 12, Larsson discloses the method according to claim 11, wherein said contention-based multiple access protocol is diversity oriented (e.g., "forwarding mechanism operates in a 'selection diversity' like fashion") [pg. 281, 3rd Paragraph] (e.g. SDF Protocol) [Pages 279-281] [Figs. 1-3].

As per claim 13, Larsson discloses the method according to claim 12, wherein said diversity-oriented protocol is the selection diversity forwarding (SDF) protocol (e.g. SDF Protocol) [Pages 279-281] [Figs. 1-3].

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7, 11-12, 15, 20-24, 26, 30, 34, and 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Brommer, U.S. Patent Publication US 2006/0114826 A1.

As per claims 1, 20, and 34, Brommer discloses a method for forwarding information in a multi-hop network having multiple nodes, said method comprising the steps of:

receiving, in at least one receiving node (AP 101a-b) [Fig.10] (i.e., 'MUD-enabled' receiving modem) [0011], a superposition of signals (e.g. "Signal 1 + Signal 2") [Fig. 3] transmitted from multiple transmitting nodes (BSS 105a-b) [Fig. 10] [Figs. 1 & 2];

employing multi-user detection (MUD) to decode multiple data packets from the received superposition of signals (MUD 115 / 215) [Figs. 1 & 2];

prioritizing among correctly decoded packets to select at least one data packet suitable for forwarding (e.g. selecting one of the K recovered K wirelessly transmitted signals) [0015]; and

replying with a packet acknowledgement for each selected packet (e.g., "Clear-to-Send" acknowledgements) [0062] (also, positive ACK) [0064].

Claims 20 and 34 recite the same limitations, are distinguished only by statutory category, and thus rejected on the same basis.

As per claims 2, 21, and 35, Brommer discloses the method according to claim 1, wherein said prioritizing step comprises the step of selecting multiple data packets suitable for forwarding, and multiple packet acknowledgements are transmitted to a plurality of corresponding transmitting nodes [0066-0068] [Fig. 14].

As per claims 3, 22, and 36, Brommer discloses the method according to claim 2, wherein said multiple packet acknowledgements are aggregated in a single acknowledgement message (e.g., superposition of ACKs 1-3) [Fig. 4a] [0135].

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As per claims 4 and 23, Brommer discloses the method according to claim 1, further comprising the step of transmitting a forwarding order to said at least one receiving node in response to a packet acknowledgement [0015] [0017] [0048-0050] (e.g. Station 1 transmits the data) [0074] [Fig. 16b] (i.e., channel assignment arbitration & data transmission timing sequences) [0089-0090].

As per claims 5 and 24, Brommer discloses the method according to claim 4, further comprising the step of executing, in response to a forwarding order, forwarding of a corresponding selected packet [0015] [0017] [0048-0050] (e.g. Station 1 transmits the data) [0074] [Fig. 16b] (i.e., channel assignment arbitration & data transmission timing sequences) [0089-0090].

As per claims 7, 26, and 37, Brommer discloses the method according to claim 1, further comprising the step of said at least one receiving node limiting the number of selected packets [0043] (e.g. only transmitting packets of selected target signal K) [0079].

As per claim 11, Brommer discloses the method according to claim 1, wherein said forwarding is performed based on a contention-based multiple access protocol [0057-0063].

As per claim 12, Brommer discloses the method according to claim 11, wherein said

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contention-based multiple access protocol is diversity oriented (e.g., MUD module 215 w/ "diversity reception") [0108].

As per claims 15 and 30, Brommer discloses the method according to claim 1, wherein at least one transmitting node transmits its data packet signal to multiple relay candidate nodes, and said method further comprises the steps of:

prioritizing among relay candidate nodes from which acknowledgements are received to select at least one suitable relay node [0017] [0048-0051];

transmitting a forwarding order to said at least one selected relay node [0017] [0048-0051].

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 6, 19, 25, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brommer, U.S. Patent Publication US 2006/0114826 A1 in view of Non-Patent Literature The DARPA Packet Radio Network Protocols, Jubin et al (hereinafter Jubin), dated January 1987.

As per claims 6 and 25, Brommer in view of Jubin discloses the method according to claim 5, further comprising the step of said at least one receiving node replying, in response to a forwarding order, with a corresponding forwarding order acknowledgement.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of a selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method further comprising the step of said at least one receiving node replying, in response to a forwarding order, with a corresponding forwarding order acknowledgement. The feature is disclosed by Jubin in a related endeavor.

Jubin describes the DARPA packet radio network, including the design, implementation and testing of fully automated algorithms and protocols to organize control, maintain, and move traffic through the packet radio [Abstract]. In particular, Jubin discloses the added feature of the method further comprising the step of said at least one receiving node replying, in response to a forwarding order, with a corresponding forwarding order acknowledgement [Jubin/Tornow, Forwarding Protocols, Section 4a-b] [Fig. 7, pg.28].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Jubin, for the motivation of providing protocols that takes advantage of broadcasting and common-channel properties (e.g., PRNET Protocol), which allow the automatic and dynamic expansion and/or contracting of the packet radio network [col 2, L18-27].

As per claims 19 and 33, Brommer in view of Jubin discloses the method according to claim 1, wherein said multi-hop network is a broadcast/multicast packet radio network.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of a selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method wherein said multi-hop network is a broadcast/multicast packet radio network. The feature is disclosed by Jubin in a related endeavor.

Jubin describes the DARPA packet radio network, including the design, implementation and testing of fully automated algorithms and protocols to organize control, maintain, and move traffic through the packet radio [Abstract]. In particular, Jubin discloses the added feature of the method wherein said multi-hop network is a broadcast/multicast packet radio network [Jubin: Broadcast Radio, Section IIa] [Fig. 2 pg.22].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature,

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as disclosed by Jubin, for the motivation of providing protocols that takes advantage of broadcasting and common-channel properties (e.g., PRNET Protocol), which allow the automatic and dynamic expansion and/or contracting of the packet radio network [col 2, L18-27].

3. Claims 8-10, 16, 27-29, 31, 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brommer, U.S. Patent Publication US 2006/0114826 A1 in view of Non-Patent Literature The Spatial Capacity of a Slotted ALOHA Multihop Packet Radio Network with Capture, Nelson et al (hereinafter Nelson), dated January 1984.

As per claims 8, 16, 27, and 38, Brommer in view of Nelson discloses the method according to claim 1, wherein said packet prioritizing step is performed based on optimization of a predetermined objective function.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of a selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method wherein said packet prioritizing step is performed based on optimization of a predetermined objective function. The feature is disclosed by Nelson in a related endeavor.

Nelson describes the DARPA packet radio network, including the design, implementation and testing of fully automated algorithms and protocols to organize control, maintain, and move traffic through the packet radio [Abstract]. In particular,

Nelson discloses the added feature of the method wherein said packet prioritizing step is performed based on optimization of a predetermined objective function [e.g., maximal transmission rate / throughput / delay performance functions) [Nelson: pg. 4-5].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Nelson, for the motivation of providing protocols that takes advantage of broadcasting and common-channel properties (e.g., PRNET Protocol), which allow the automatic and dynamic expansion and/or contracting of the packet radio network [col 2, L18-27].

As per claims 9, 28, 31, and 39 Brommer in view of Nelson discloses the method according to claim 8, wherein said predetermined objective function includes information cost progress.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method wherein said predetermined objective function includes information cost progress. The feature is disclosed by Nelson in a related endeavor.

Nelson describes the DARPA packet radio network, including the design, implementation and testing of fully automated algorithms and protocols to organize

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control, maintain, and move traffic through the packet radio [Abstract]. In particular, Nelson discloses the added feature of the method wherein said predetermined objective function includes information cost progress [e.g., maximal transmission rate / throughput / delay performance functions) [Nelson: pg. 4-5].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Nelson, for the motivation of providing protocols that takes advantage of broadcasting and common-channel properties (e.g., PRNET Protocol), which allow the automatic and dynamic expansion and/or contracting of the packet radio network [col 2, L18-27].

As per claims 10, 29, and 40, Brommer in view of Nelson discloses the method according to claim 1, wherein said packet prioritizing step is performed based on at least one Quality of Service (QoS) requirement [e.g., maximal transmission rate / throughput / delay performance functions) [Nelson: pg. 4-5].

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method wherein said packet prioritizing step is performed based on at least one Quality of Service (QoS) requirement. The feature is disclosed by Nelson in a related endeavor.

Nelson describes the DARPA packet radio network, including the design, implementation and testing of fully automated algorithms and protocols to organize control, maintain, and move traffic through the packet radio [Abstract]. In particular, Nelson discloses the added feature of the method wherein said packet prioritizing step is performed based on at least one Quality of Service (QoS) requirement [e.g., maximal transmission rate / throughput / delay performance functions] [Nelson: pg. 4-5].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Nelson, for the motivation of providing protocols that takes advantage of broadcasting and common-channel properties (e.g., PRNET Protocol), which allow the automatic and dynamic expansion and/or contracting of the packet radio network [col 2, L18-27].

4. Claims 14, 17, 18, 32 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brommer, U.S. Patent Publication US 2006/0114826 A1 in view of Non-Patent Literature SEEDEx: A MAC Protocol for ad hoc Networks, Rozovsky et al (hereinafter Rozovsky), 2001.

As per claim 14, Brommer in view of Rozovsky discloses the method according to claim 11, wherein said contention-based multiple access protocol is an opportunistic protocol.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of selected packets in response to a forwarding

order, he does not explicitly disclose the added feature of the method wherein said contention-based multiple access protocol is an opportunistic protocol. The feature is disclosed by Rozovsky in a related endeavor.

Rozovsky a protocol that seeks to avoid collisions without making explicit reservations for each and every packet [Rozovsky: Abstract]. In particular, Rozovsky discloses the added feature of the method wherein said contention-based multiple access protocol is an opportunistic protocol (e.g., opportunistically choosing transmission slots) [Rozovsky: Abstract].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Rozovsky, for the motivation of providing a protocol for the MAC layer, which determines how nodes make decisions in real time on when to transmit packets, and which attempts to make reservations without explicitly making them [Rozovsky: Introduction, pg. 67 & 3rd Par., pg. 68].

As per claim 17, Brommer in view of Rozovsky discloses the method according to claim 15, wherein at least one of said multiple relay candidate nodes is implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of selected packets in response to a forwarding

order, he does not explicitly disclose the added feature of the method wherein at least one of said multiple relay candidate nodes is implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node. The feature is disclosed by Rozovsky in a related endeavor.

Rozovsky a protocol that seeks to avoid collisions without making explicit reservations for each and every packet [Rozovsky: Abstract]. In particular, Rozovsky discloses the added feature of the method wherein at least one of said multiple relay candidate nodes is implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node (e.g., "neighbors of transmitters T and receivers R) [Rozovsky: Figure 2].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Rozovsky, for the motivation of providing a protocol for the MAC layer, which determines how nodes make decisions in real time on when to transmit packets, and which attempts to make reservations without explicitly making them [Rozovsky: Introduction, pg. 67 & 3rd Par., pg. 68].

As per claim 18, Brommer in view of Rozovsky discloses the method according to claim 1, further comprising the step of each transmitting node removing, in response to an acknowledgement of a previously transmitted packet, the acknowledged packet data from a data buffer in the transmitting node.

While Brommer discloses substantial features of the invention such as the method of claim 5, and the forwarding of selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the method further comprising the step of each transmitting node removing, in response to an acknowledgement of a previously transmitted packet, the acknowledged packet data from a data buffer in the transmitting node. The feature is disclosed by Rozovsky in a related endeavor.

Rozovsky a protocol that seeks to avoid collisions without making explicit reservations for each and every packet [Rozovsky: Abstract]. In particular, Rozovsky discloses the added feature of the method further comprising the step of each transmitting node removing, in response to an acknowledgement of a previously transmitted packet, the acknowledged packet data from a data buffer in the transmitting node (Rozovsky: 2nd Par., pg. 72).

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Rozovsky, for the motivation of providing a protocol for the MAC layer, which determines how nodes make decisions in real time on when to transmit packets, and which attempts to make reservations without explicitly making them [Rozovsky: Introduction, pg. 67 & 3rd Par., pg. 68].

As per claim 32, Brommer in view of Rozovsky discloses the system according to claim 30, wherein said at least one transmitting node further comprises means for implicitly

addressing at least one of said multiple relay candidate nodes based on an indication that it is a neighbor of an explicitly addressed relay candidate node.

While Brommer discloses substantial features of the invention such as the method of claim 30, and the forwarding of selected packets in response to a forwarding order, he does not explicitly disclose the added feature of the system wherein said at least one transmitting node further comprises means for implicitly addressing at least one of said multiple relay candidate nodes based on an indication that it is a neighbor of an explicitly addressed relay candidate node. The feature is disclosed by Rozovsky in a related endeavor.

Rozovsky a protocol that seeks to avoid collisions without making explicit reservations for each and every packet [Rozovsky: Abstract]. In particular, Rozovsky discloses the added feature of the method further comprising the step of each transmitting node removing, in response to an acknowledgement of a previously transmitted packet, the acknowledged packet data from a data buffer in the transmitting node (e.g., "neighbors of transmitters T and receivers R) [Rozovsky: Figure 2].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above added feature, as disclosed by Rozovsky, for the motivation of providing a protocol for the MAC layer, which determines how nodes make decisions in real time on when to transmit packets, and which attempts to make reservations without explicitly making them [Rozovsky: Introduction, pg. 67 & 3rd Par., pg. 68].

As per claim 41, Brommer in view of Rozovsky discloses a communication node in a packet radio multi-hop network, said communication node comprising:

means for transmitting a data packet signal to multiple relay candidate nodes, at least one of said multiple relay candidate nodes being implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node;

means for prioritizing among relay candidate nodes from which acknowledgements that a packet has been accepted for forwarding are received to select at least one suitable relay node [0017] [0048-0051]; and

means for transmitting a forwarding order to said at least one selected relay node [0017] [0048-0051].

While Brommer discloses substantial features of the invention such as the method of claim 1, including means for prioritizing among relay candidate nodes from which acknowledgements that a packet has been accepted for forwarding are received to select at least one suitable relay node [0017] [0048-0051]; and means for transmitting a forwarding order to said at least one selected relay node [0017] [0048-0051], he does not explicitly disclose the additionally recited feature of the system having means for transmitting a data packet signal to multiple relay candidate nodes, at least one of said multiple relay candidate nodes being implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node. The feature is disclosed by Rozovsky in a related endeavor.

Rozovsky a protocol that seeks to avoid collisions without making explicit reservations for each and every packet [Rozovsky: Abstract]. In particular, Rozovsky discloses the added feature of the method means for transmitting a data packet signal to multiple relay candidate nodes, at least one of said multiple relay candidate nodes being implicitly addressed based on an indication that it is a neighbor of an explicitly addressed relay candidate node (e.g., "neighbors of transmitters T. and receivers R) [Rozovsky: Figure 2].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Brommer's invention with the above additionally recited feature, as disclosed by Rozovsky, for the motivation of providing a protocol for the MAC layer, which determines how nodes make decisions in real time on when to transmit packets, and which attempts to make reservations without explicitly making them [Rozovsky: Introduction, pg. 67 & 3rd Par., pg. 68].

Conclusion

1. The Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the

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references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenford Madamba whose telephone number is 571-272-7989. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on 571-272-3440. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Glenford Madamba
Examiner
Art Unit 2151

Valencia Martin Wallace
SPE ART UNIT 2151

